

Y6 Science Curriculum



Autumn	Animals including Humans (Circulatory System)	Living Things and their Habitats (Classification)
Year 6	-To know that the heart is an organ in the body and it is a muscle. -To know that blood is made of red blood cells, white blood cells, plasma and platelets. -To label the heart using the terms ventricle and atrium. -To know that arteries carry oxygenated blood away from the heart and veins carry de-oxygenated blood to the heart. -To know that the body absorbs nutrients through the capillaries. -To know that exercise increases the rate of heart beat (pulse) to deliver oxygen around the body. -To know how exercise and healthy eating can improve your fitness -To know that alcohol and drugs can have a negative effect on the human body	-Classify animals into their nutritional groups (herbivore, omnivore and carnivore). -I know what an exoskeleton is. -Explain how to classify plants based on their characteristics. -Explain the difference between vascular and nonvascular plants. -I know that a microorganism is a living thing. -Name the five groups scientists use to classify microorganisms. -Talk about some of the characteristics of each group of microorganisms. -Explain why Carolus Linnaeus is an important scientist.

Spring	Light	Electricity
Year 6	● Be able to identify light sources. ● Recognise that light appears to travel in straight lines. ● Be able to identify reflective materials. ● Name and label parts of the eye. ● Be able to explain the difference between reflection and refraction. ● Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. ● Explain why shadows have the same shape as the objects that cast them. ● Explain how shadows change during the day.	● That voltage is related to the power or energy of electricity. ● Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. ● If the voltage is increased the component will receive more power. ● Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. ● Electrical components can be represented by symbols. ● Use recognised symbols when representing a simple circuit in a diagram ● Electricity is a flow of electrons from negative to positive. ● Recognise different renewable and non-renewable energy.

Summer	Evolution and Inheritance
Year 6	● Identify how plants are adapted to their environment. ● Identify how animals are ● adapted to their environment. ● Explain how adaptations may lead to evolution and give an example of an adaptation that has led to the species' evolution. ● Explain which characteristics we ● can inherit from our parents. ● Explain why siblings may look similar but not identical. ● I know that information stored in parent genes is passed onto offspring. ● Explain how fossils help us to explain evolution. ● Explain the process of ● natural selection and ● what evolution is.